



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801

(801) 538-5340 telephone

(801) 359-3940 fax

(801) 538-7223 TTY

www.nr.utah.gov

Michael O. Leavitt
Governor

Robert L. Morgan
Executive Director

Lowell P. Braxton
Division Director

November 4, 2003

CERTIFIED RETURN RECEIPT

7099 3400 0016 8896 3403

Mr. Robert Steele
1055 North 400 East
Nephi, Utah 84648

Subject: Second Review of Notice of Intention to Commence Large Mining Operations, Robert Steele, HiCal No. 1 Mine, M/023/071, Juab County, Utah

Dear Mr. Steele:


The Division has completed a review of your response to our initial review of your Notice of Intention to Commence Large Mining Operations for the HiCal No. 1 Mine located in Juab County, Utah, which was sent July 18, 2003. After reviewing the latest information, the Division has the following comments that must be addressed before tentative approval may be granted.

The soils and vegetation portions of this review were rewritten, based partly on a site visit by Paul Baker and Tom Munson, but the requirements are essentially the same as in the initial review. Other portions of this review include comments from the initial review, in normal type, and new comments in *bold italics*. **In response to this review, we suggest sending replacement pages to the original mining notice using redline and strikeout text, so we can see what changes have been made. After the notice is determined technically complete and we are prepared to issue final approval, we will ask that you send us two copies of the complete and corrected plan. Upon final approval of the permit, we will return one copy stamped "approved" for your records.** Please provide a response to this review of the permit application by December 5, 2003.

Robert Steele
Page 2 of 2
M/023/071
November 4, 2003

The Division will suspend further review of the HiCal No. 1 Mine Notice of Intention until your response to this letter is received. If you have any questions in this regard please contact me, Tom Munson, Paul Baker or Doug Jensen of the Minerals Staff. If you wish to arrange a meeting to sit down and discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Wayne Hedberg". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

DWH:TMjb
Attachment: Review
cc: Rex Rowley, BLM, Fillmore FO (UTU-078294)
O:\M023-Juab\M0230071-HiCal final\2ndrev-soil-10022003.doc

**SECOND REVIEW OF NOTICE OF INTENTION
TO COMMENCE LARGE MINING OPERATIONS**

**Robert Steele
Hi Cal #1 Mine**

**M/023/071
November 4, 2003**

R647-4-105 - Maps, Drawings & Photographs

105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)

Please furnish a *minimum* of one north-south and one east-west cross-section of the mine area. These sections should show the surface, before mining, after mining and after reclamation. (DJ)

The maps furnished with the review reply were plat maps showing the features of the mine, no cross-sections were furnished. This information is still required. (DJ)

R647-4-106 - Operation Plan

106.3 Estimated acreages disturbed, reclaimed, annually.

Acreage to be disturbed during the life of this operation indicates 0.5 acres of access/haulroad and 0.5 acres of overburden/waste dumps. Please indicate on the site map the locations of these features. (DJ)

It is unclear whether the overburden/waste dumps and access/haulroads shown on the plat maps are the areas referred to in this statement. Please modify the site map to show these two areas clearly. (DJ)

Attachment #4 map should be modified to indicate the areas to be disturbed (mined) annually for the life of this permit. (DJ)

The areas of future expansion are not shown on plat maps furnished with the reply. Please provide the requested information. (DJ)

106.4 Nature of materials mined, waste and estimated tonnages

The plan shows that the overburden depth is two feet, but the estimated waste produced during mining is stated as "none". Please review this statement and correct the plan accordingly. (DJ)

The operators reply is sufficient to satisfy the requirements of this section. (DJ)

106.5 Existing soil types, location, amount

A soil survey should be available from the Natural Resources Conservation Service, and pertinent portions should be included in the plan. Although the vegetation on the site, predominantly sagebrush, indicates the soil is not sodic, there could be a clay or calcic horizon that would limit the amount of soil that

should be harvested. This information should be in the soil survey. As the mine progresses to the south, the operator will need to salvage soils from undisturbed areas, and the operator and the Division need to know how much soil can be and should be salvaged. Although the plan says there is 0-24 inches of soil, it may not be advisable to gather all unconsolidated material that might be considered soil. On the other hand, the operator should stockpile whatever suitable material is available. If available, it would be best to have enough material to cover the entire site with at least six inches of soil. (PBB)

The Division needs an accounting of how much soil has been stockpiled or is otherwise available for reclamation. About 1500 cubic yards of soil is currently stockpiled on the west side of the mine area (average of 1.4 inches over the site), but in an on-site meeting on September 24, 2003, the operator indicated there are some other materials that are currently in the pad that will be used as soil. ***The plan should mention this material; include an estimate of how much is available, and discuss how this will affect the amount of soil to be spread over the site.*** (PBB)

The operator also indicated there was some soil on the east side of the mine area, currently covered with clay from the mine, that could be used in reclamation. ***The plan should also discuss how this material might be used.*** (PBB)

106.6 Plan for protecting and redepositing soils

Section 106.5 of the application says the depth of soil material is 0-24 inches and that the volume for stockpiling is 1500 cubic yards, but Section 106.6 of the application says the thickness of soil material to be salvaged and stockpiled is 24 inches and that 1500 cubic yards are to be stockpiled. ***This discrepancy needs to be corrected.*** Fifteen hundred cubic yards of soil spread over eight acres comes to a depth of just 1.4 inches, not 24 inches. This amount is inadequate; there should be at least six inches spread over the reclaimed area. (PBB)

There are some areas into which the operator plans to expand the mine, where it may be possible to salvage additional soil and make up for deficits in other areas. ***The operator needs to commit to saving all suitable soil in the expansion area to make up for deficits in other areas as much as possible. As mentioned in Section 106.5 above, the soil survey should contain information about how much soil could be salvaged in this area.*** (PBB)

If there is not enough suitable material to cover the site with at least six inches of soil, ***the operator needs to include plans for using overburden or mine waste material as a subsoil.*** (PBB)

The application needs to show how topsoil will be protected. The soil stockpiles should be seeded with an approved seed mix to reduce erosion and the amount of weed seed. The Division strongly advises placing signs on or near the soil

stockpiles to help prevent them from being covered with other material or from being used as fill or mistaken for overburden material. (PBB)

106.7 Existing vegetation—species and amount

The application says vegetation cover is 50 percent, but there is no indication this is based on actual data. The application needs to include a vegetation survey that shows cover by species, and it needs to show what sampling methods were used. The only species listed in the application is sagebrush (assumed to be big sage), and there are at least four distinct subspecies of big sagebrush that often grow in very different habitats. *A minimum of ten transects should be sampled from each vegetation community (there may only be one community). This level of detail is needed both to confirm the revegetation success standard and to help in developing the revegetation plan. (PBB)*

This section of the application indicates the revegetation requirement is 70 percent cover, but the regulatory requirement is that the revegetation achieve 70 percent of the premining vegetative ground cover. If the premining vegetation cover is 50 percent, then the standard would be 35 percent. *Please verify this 70 percent cover statement based on this explanation. (PBB)*

106.9 Location & size of ore, waste, tailings, ponds

Please show the size and location of waste piles to be constructed at the site. (DJ)
An overburden pile is shown on the plat map. Operators reply is sufficient to satisfy the requirements of this section. (DJ)

R647-4-107 - Operation Practices

107.1 Public safety & welfare

107.1.15 Constructing berms, fences, etc. above highwalls

Berms or fences should be constructed above any highwalls that may exist at the site. Signs warning the public of the hazards posed by these features should be placed on the berms or fences. (DJ)

Operator's reply states that berms have been constructed, and warning signs will be placed. (DJ)

107.6 Concurrent reclamation

In this section, the application refers to Attachment 4 which is a map showing a small reclaimed area on the northeast side of the disturbance. *The application needs to discuss whether concurrent reclamation is feasible, and how, when, and where it will be done. (PBB)*

R647-4-109 - Impact Assessment

109.4 Slope stability, erosion control, air quality, safety

A crusher is being used onsite to prepare the material for removal. Has an air quality permit been applied for from the Utah Air Quality Division? Please include a copy of the application with your response to this review. (DJ)
An air quality permit number has been furnished. Operator's reply will satisfy the requirements of this section. (DJ)

R647-4-110 - Reclamation Plan

110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed

The plan does not indicate whether any highwalls will exist during and after mining. Please show the size and location of any highwalls that may result from your mining activities. If highwalls do occur at the site, please indicate the reclamation treatments that will be applied in these areas. (DJ)

Operator's reply states that highwalls will be covered with waste clay (overburden) topsoiled and reseeded. Please state what the final slope angle of these features will be. (DJ)

110.5 Revegetation planting program

It is vital that the seedbed be left rough, and the application needs to discuss how this will be done. The Division recommends that the operator use a trackhoe or similar equipment to create gouges about two feet in diameter and one foot deep. If the site is ripped, the ripper shanks should be spaced no more than three feet apart, and the ripping needs to be done parallel to the contour. The rough surface helps retain moisture and decrease runoff, and it also provides better places for seedlings to become established. (PBB)

Attachment 1 includes a reclamation seed mix, but the Division needs vegetation cover data before approving this mix or recommending substitutions.

The Division will recommend a mix once this data is received and will seek comments from the Bureau of Land Management about the seed mix. The mix in the application includes eight pounds of crested wheatgrass, and while crested wheatgrass is adapted to the site, it is an introduced species that should either be eliminated or scaled back considerably. When possible, the BLM normally tries to manage for native species. (PBB)

The operator should specify what method or combination of methods will be used to apply seed. It may be necessary to broadcast the seed to preserve surface roughness. ***Seed must be broadcast as soon as possible after surface preparation, and the application needs to contain this commitment.*** (PBB)

The operator needs to commit to seeding the site in the late fall, about October or November. (PBB)

R647-4-111 - Reclamation Practices

The plan states "At the completion of mining Rule R647-3-107, 108. & 109 will comply with this mining operation." This statement is confusing because Rule R647-3- are rules to be applied to small mines, Rule R647-4 are rules that apply to a large mine application. The plan should provide a description of which portions of these rules would apply to this operation and the planned actions to address these impacts. (DJ)

All large mine rules will apply to the operation of this permit. (Operator's reply is sufficient). (DJ)

111.1 Public safety & welfare

1.15 Constructing berms/fences above highwalls

If highwalls result from mining activities, berms or fencing need to be constructed above these areas. (DJ)

See R647-4-107.1 reply. (DJ)

111.7 Highwalls stabilized at 45 degrees or less

If highwalls occur on the site, the plan should indicate what method would be used to stabilize these areas. (DJ)

See R647-4-110.2

R647-4-113 – Surety

A blank reclamation surety form is included with this review for your use. (DJ)

A copy of a blank surety form is attached. You may use it to prepare a draft reclamation cost estimate for our review and adjustment to reflect third party costs. (DJ)